

Notice of Allowability

Applicati n No.

09/809,228

Examiner

Kimberly D. Nguyen

Applicant(s)

VINOGRADOV ET AL.

Art Unit

2876

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 16 September 2003.
2. ☒ The allowed claim(s) is/are 1-18, 20 and 22-61.
3. ☒ The drawings filed on 15 March 2001 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.
5. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
 - (a) ☐ The translation of the foreign language provisional application has been received.
6. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

7. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
8. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No. _____.
 - (b) ☐ including changes required by the proposed drawing correction filed _____, which has been approved by the Examiner.
 - (c) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No. _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the margin according to 37 CFR 1.121(d).

9. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachm nt(s)

- | | |
|--|--|
| 1 <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5 <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2 <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6 <input checked="" type="checkbox"/> Interview Summary (PTO-413), Paper No. <u>20031106</u> |
| 3 <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No. _____ | 7 <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4 <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material | 8 <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9 <input type="checkbox"/> Other |

DETAILED ACTION

Amendment

1. Acknowledgement is made of Amendment filed 16 September 2003.

EXAMINER'S AMENDMENT

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Michael Porco on 6 November 2003.

IN THE CLAIMS:

Re claim 13: Replace claim 13 with the following:

-- 13. A multipurpose unitarily formed, optically transmissive body for supporting a laser source and collecting light reflected from a target in an optical system, the optical system for projecting and collecting laser light in order to read an encoded indicia, said multipurpose unitarily formed, optically transmissive body comprising: a laser support region for supporting said laser source; and at least one collection surface for collecting light reflected from said indicia, said laser support region and said collection surface being integrally formed with said unitarily formed, optically transmissive body --.

Re claim 18: Replace claim 18 with the following:

-- 18. A multipurpose unitarily formed, optically transmissive body for supporting a laser source and collecting light reflected from a target in an optical system, the optical system for projecting

a focused beam of laser light and collecting reflected light in order to read an encoded indicia, said multipurpose unitarily formed, optically transmissive body comprising:

a laser support region for supporting said laser source;

an output surface substantially perpendicular to said beam for transmitting said laser light; and

a collection surface for collecting light reflected from said indicia, wherein said collection surface substantially transmits a P-polarized component and a portion of an S-polarized component of said reflected light and redirects an appropriate amount of the remaining S-polarized component of said reflected light to a photodetector to enable said optical system to read said indicia, said laser support region, said output surface and said collection surface being integrally formed with said unitarily formed, optically transmissive body --.

Re claim 22: Replace claim 22 with the following:

-- 22. A unitarily formed, optically transmissive body for collecting light reflected from a target in an optical system, the optical system for transmitting a beam of laser light and collecting reflected light in order to read an indicia, said unitarily formed, optically transmissive body comprising: an integrally formed output surface substantially perpendicular to said beam for transmitting said laser light; and an integrally formed collection surface for collecting light reflected from said indicia, wherein said collection surface substantially transmits a P-polarized component and a portion of an S-polarized component of said reflected light and redirects an appropriate amount of the remaining S-polarized component of said reflected light to a photodetector to enable said optical system to read said indicia --.

Allowable Subject Matter

3. Claims 1-18, 20, and 22-61 are allowed.
4. The following is an examiner's statement of reasons for allowance:

The record of prior art fails to teach an optical device having a unitarily formed body of optically transmissive material having an aperture forming area and a beam phase modifying area both being integrally formed with the unitarily formed body and receptive of light from a light source for a focus-free forming of a beam for reading the optical code, the unitarily formed body also having an integrally formed collection surface for reflecting at least a portion of light returning from the optical code to a photodetector.

Eastman (US 4,603,262) teaches an optical device for use in an optical system for reading an optical code, comprising a unitary body of optical material having an aperture forming area and a beam phase modifying area both receptive of light from a light source for a focus-free forming of a beam for reading the optical code, the unitary body 12 also having an integrated collection surface for reflecting at least a portion of light returning from the optical code to a photodetector.

Plesko (US 5,864,128) teaches an optical system, wherein the inner region of the inner surface comprises a converging region for focusing a portion of the light to form the beam and the outer region of the inner surface comprises a diverging region for diverging a portion of the laser light away from the beam; and wherein the converging region is located concentrically within the diverging region.

However, Eastman, Plesko etc., taken alone or in combination thereof, fails to teach or fairly suggest an optical device having a unitarily formed body of optically transmissive material

having an aperture forming area and a beam phase modifying area both being integrally formed with the unitarily formed body and receptive of light from a light source for a focus-free forming of a beam for reading the optical code, the unitarily formed body also having an integrally formed collection surface for reflecting at least a portion of light returning from the optical code to a photodetector.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimberly D. Nguyen whose telephone number is 703-305-1798. The examiner can normally be reached on Monday-Friday 7:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee can be reached on 703-305-3503. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-8792.

KDN
12 November 2003


MICHAEL G. LEE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800

13. A multipurpose unitarily formed, optically transmissive body for supporting a laser source and collecting light reflected from a target in an optical system, the optical system for projecting and collecting laser light in order to read an encoded indicia, said multipurpose unitarily formed, optically transmissive body comprising: a laser support region for supporting said laser source; and at least one collection surface for collecting light reflected from said indicia, said laser support region and said collection surface being integrally formed with said unitarily formed, optically transmissive body.

18. A multipurpose unitarily formed, optically transmissive body for supporting a laser source and collecting light reflected from a target in an optical system, the optical system for projecting a focused beam of laser light and collecting reflected light in order to read an encoded indicia, said multipurpose unitarily formed, optically transmissive body comprising:

a laser support region for supporting said laser source;

an output surface substantially perpendicular to said beam for transmitting said laser light; and

a collection surface for collecting light reflected from said indicia, wherein said collection surface substantially transmits a P-polarized component and a portion of an S-polarized component of said reflected light and redirects an appropriate amount of the remaining S-polarized component of said reflected light to a photodetector to enable said optical system to read said indicia, said laser support region, said output surface and said collection surface being integrally formed with said unitarily formed, optically transmissive body.

22. A unitarily formed, optically transmissive body for collecting light reflected from a target in an optical system, the optical system for transmitting a beam of laser light and collecting reflected light in order to read an indicia, said unitarily formed, optically transmissive body comprising: an integrally formed output surface substantially perpendicular to said beam for transmitting said laser light; and a an integrally formed collection surface for collecting light reflected from said indicia, wherein said collection surface substantially transmits a P-polarized component and a portion of an S-polarized component of said reflected light and redirects an appropriate amount of the remaining S-polarized component of said reflected light to a photodetector to enable said optical system to read said indicia.


MICHAEL G. LEE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800